Remarks/Arguments:

This is a reply to the office action of May 3, and follows an interview with the examiner in his office on July 10. The courtesy of the interview was appreciated. The Interview Summary Record is correct.

At the interview, we demonstrated a model of the invention, and particularly pointed out how the lock has threads (or another type of rotary coupling, perhaps a bayonet coupling) at its lower end, so that it can be screwed into complementary threads inside the bottom of the seat tube. We noted that the best reference, Huscher, does not have this feature.

We also observed that the present lock cannot be unscrewed, even if a thief removes the bicycle seat, because as long as the device is in the locked position, the engagement between its non-circular locking pin and the complementary recess in the crankshaft prevents the lock from being turned inside the seat tube. In contrast, Huscher's bolt is both round and centered within the seat tube, so his bolt would not prevent rotation of his mechanism, even in its locked position. Of course, the small screws *x* Huscher inserted through the seat tube would prevent rotation, but they might be removed rather easily from the outside.

The present invention provides an added measure of protection against a determined thief. It also makes the use of retaining screws unnecessary.

We have amended the claims to identify more clearly the features highlighted above. In particular, the substance of claim 7 has been added to claim 1, and claim 7 has been canceled. Duplicate language has been deleted from claim 1, and claims 2 and 3 have been clarified.

The bicycle lock according to claim 1 differs from the lock disclosed in Huscher in that the lock housing is coupled to the saddle tube by a rotating coupling and that the locking pin prevents the lock from rotating, when it is engaged in the crankshaft recess. This prevents a thief from defeating the lock, e.g., by removing the seat and inserting a tool down the seat tube to unscrew the mechanism. The mechanism cannot be turned until the bolt is withdrawn from the crankshaft recess the proper way, i.e., by operating the key.

The examiner referred to page 2, lines 56 - 61 of Huscher; however, that passage refers not to the connection between the lock housing and the seat tube, but rather to the connection between the keying mechanism and the lock housing. It seems clear from the drawings and the rest of the description that Huscher's mechanism is simply dropped down the seat tube, and secured at the bottom by screws, rather than having a rotatable connection (e.g., applicant's item 12, Fig. 1). What Huscher describes as being retained by threads is his key barrel E (Fig. 7), which has a threaded connection to the lock mechanism, but not to the seat tube.

Claim 1 distinguishes this invention from Huscher in reciting "the lock housing being coupled to the saddle tube by a rotating coupling, the locking pin in the lower position thereof blocking rotation of the lock housing and preventing it from being removed from the saddle tube."

We believe that claim 1 is not only novel over Huscher, but also non-obvious, in part because Huscher (nor any other reference) discloses or suggests that one might provide a locking pin that not only blocks rotational movement of the crankshaft of the bicycle but also blocks rotation of the lock housing with respect to the saddle tube.

Claims 2 - 15 are deemed allowable both because they depend from claim 1, and for the additional limitations each claim recites, in combination with those of its parent

claim(s).

Claim 15 was rejected as obvious over Huscher in view of Ragsdale (Patent 4284290). We understand that Ragsdale was applied particularly against claim 15, and that Ragsdale shows an internal bike lock having a cable component. However, in our view, it does not overcome Huscher's deficiencies with respect to claim 1.

We believe that the claims presented patentably distinguish the invention from the prior art of record, and that this invention is now in proper condition for allowance.

Kindly substitute the enclosed three sheets of formal drawings for the corresponding drawings filed originally. No new matter is presented.

Respectfully submitted,

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